

1. Response to Rejection of Independent Claim 1

Applicants' claim 1 is directed to a "multi-function hub for use in an assist system." As claimed, the multi-function hub includes "an input/output ("I/O") interface for communication to a plurality of computational nodes." The hub and computational nodes may be used, for example, to interconnect a variety of different modules in an assist system.

Referring to Applicant's specification, in one exemplary embodiment Applicants describe that the computational nodes may communicate with various different modules, such as trolleys, lifts, sensors, hubs, intent sensors and user toolings. (pg. 15). The computational nodes can be used to control each module and permit communication between modules. (pg. 17) Further, the computational nodes may communicate with a plant information network and a computer for setup and configuration. (pg. 17). As claimed, the Applicants' multi-function hub includes an I/O interface for communication to a plurality of computational nodes.

In contrast, Kazerooni generally describes an end-effector 222 connected to a controller 221 via a signal cable 223. The controller can receive signals from the end-effector. In response to the signals, the controller can cause a corresponding movement in the actuator to move a load. While Kazerooni describes that the "controller 221 can be an analog circuit, a digital circuit, or a computer with electronic input/output capability," the controller only serves as an interface between the end-effector and the actuator. The controller does not communicate with other components. Thus, Kazerooni does not disclose a hub, let alone one that includes an I/O for communication to a plurality of different computational nodes.

As claim 1 contains a limitation neither taught nor suggested by Kazerooni, claim 1 is therefore allowable. Claims 2-31, which depend from claim 1, are therefore also allowable.

2. Response to Rejection of Dependent Claims 11-13

For the reasons previously described, Kazerooni does not disclose the multi-function hub as claimed in Applicants' independent claim 1. Yuan also fails to describe Applicants' multi-function hub. Since both Kazerooni and Yuan fail to disclose Applicants' multi-function hub, the Examiner's proposed combination of Kazerooni and Yuan does not render obvious dependent claims 11-13. Therefore, claims 11-13 are allowable.

3. Conclusion


Applicant respectfully submits that all pending claims 1-31 are allowable. Independent claim 1 is allowable for the reasons previously explained. Therefore, dependent claims 2-31 are also allowable. Applicant submits that the application is in condition for allowance and respectfully requests early notice to this effect.

If any questions or issues remain, the Examiner is invited to immediately contact the undersigned attorney, Brian Harris, at his direct dial number (312) 913-3303.

Respectfully submitted,

**McDONNELL BOEHNEN
HULBERT & BERGHOFF**

Date: 11/22/02

By: 
Brian R. Harris
Reg. No. 45,900